

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-21. (Canceled)

22. (Currently Amended) A guide wire comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;

a continuous, unitary coil composed of a second material and that surrounds a substantial portion of the length of the core and extends along the length of the core from a portion of the core near the proximal end of the core to a portion of the core near a distal end of the core distal of the distal portion of the core; and

a polymeric tip contacting and extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material that extends within spaces between adjacent turns of the coil.

23. (Canceled)

24. (Canceled)

25. (Previously Presented) The guide wire of claim 22, wherein the coil surrounds the entire length of the core.

26. (Canceled)

27. (Canceled)

28. (Currently Amended) ~~A The guide wire of claim 22, wherein the second material comprises~~ comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;

a continuous, unitary coil composed of a second material comprising stainless steel and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core; and

a polymeric tip contacting and extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material that extends within spaces between adjacent turns of the coil.

29. (Currently Amended) ~~A The guide wire of claim 22, wherein the second material comprises~~ comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;

a continuous, unitary coil composed of a second material comprising a precipitation hardenable alloy and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core; and

a polymeric tip contacting and extending from a distal portion of the coil,
wherein the tip connects to the core by a polymeric material that extends within spaces
between adjacent turns of the coil.

30. (Previously Presented) The guide wire of claim 22, wherein the distal portion of the core is tapered.

31. (Canceled)

32. (Currently Amended) ~~A~~ The guide wire of claim 22, wherein the tip includes comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;

a continuous, unitary coil composed of a second material and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core; and

a polymeric tip, including a radio-opaque material, contacting and extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material that extends within spaces between adjacent turns of the coil.

33. (Currently Amended) ~~A~~ The guide wire of claim 22, wherein the coil comprises comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;

a continuous, unitary coil composed of a second material and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core, the coil having a pitch that varies at least once along the length of the core; and

a polymeric tip contacting and extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material that extends within spaces between adjacent turns of the coil.

34. (Previously Presented) The guide wire of claim 22, wherein the coil comprises a coating.

35. (Previously Presented) The guide wire of claim 34, wherein the coating is lubricious.

36. (Previously Presented) The guide wire of claim 34, wherein the coating is colored.

37. (Previously Presented) The guide wire of claim 22, wherein the coil comprises a rectangular cross-section.

38. (Currently Amended) A ~~The guide wire of claim 22, wherein the coil~~
~~comprises~~ comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;

a continuous, unitary coil having a circular cross-section and composed of a second material and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core, the coil having; and

a polymeric tip contacting and extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material that extends within spaces between adjacent turns of the coil.

39. (Previously Presented) The guide wire of claim 22, wherein the coil comprises a multifilar wire.

40-56. (Canceled)

57. (Currently Amended) A guide wire comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, a distal portion, and a constant diameter along the length;

a continuous, unitary coil composed of a second material and that surrounds a substantial portion of the length of the core and extends along the length of the core from a portion of the core near the proximal end of the core to a portion of the core near a distal end of the core distal of the distal portion of the core; and

a polymeric tip extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material.

58. (Previously Presented) The guide wire of claim 57, wherein the coil surrounds the entire length of the core.

59. (Canceled)

60. (Currently Amended) ~~A~~ The guide wire of claim 57, wherein the second material comprises comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, a distal portion, and a constant diameter along the length;

a continuous, unitary coil composed of a second material comprising stainless steel and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core; and

a polymeric tip extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material.

61. (Currently Amended) ~~A~~ The guide wire of claim 57, wherein the second material comprises comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, a distal portion, and a constant diameter along the length;

a continuous, unitary coil composed of a second material comprising a precipitation hardenable alloy and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core; and

a polymeric tip extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material.

62. (Currently Amended) ~~A~~ The guide wire of claim 57, wherein the tip includes comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, a distal portion, and a constant diameter along the length;

a continuous, unitary coil composed of a second material and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core; and

a polymeric tip including a radio-opaque material and extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material.

63. (Previously Presented) The guide wire of claim 57, wherein the coil comprises a pitch that varies at least once along the length of the core.

64. (Previously Presented) The guide wire of claim 57, wherein the coil comprises a coating.

65. (Previously Presented) The guide wire of claim 64, wherein the coating is lubricious.

66. (Previously Presented) The guide wire of claim 64, wherein the coating is colored.

67. (Previously Presented) The guide wire of claim 57, wherein the coil comprises a rectangular cross-section.

68. (Previously Presented) The guide wire of claim 57, wherein the coil comprises a circular cross-section.

69. (Previously Presented) The guide wire of claim 57, wherein the coil comprises a multifilar wire.

70. (Previously Presented) A guide wire comprising:

an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;

a continuous, unitary coil composed of a second material and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core, wherein the coil comprises a first coil portion having a first pitch and a second coil portion having a second pitch greater than the first pitch; and

a polymeric tip extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material.

71. (Previously Presented) The guide wire of claim 70, wherein the second coil portion surrounds the distal portion of the core.

72. (Previously Presented) The guide wire of claim 70, wherein the coil surrounds the entire length of the core.

73. (Previously Presented) The guide wire of claim 70, wherein the coil extends along the length of the core from the portion of the core near the proximal end of the core to a portion of the core near a distal end of the core.

74. (Previously Presented) The guide wire of claim 70, wherein the second material comprises stainless steel.

75. (Previously Presented) The guide wire of claim 70, wherein the second material comprises a precipitation hardenable alloy.

76. (Previously Presented) The guide wire of claim 70, wherein the distal portion of the core is tapered.

77. (Previously Presented) The guide wire of claim 70, wherein the tip includes a radio-opaque material.

78. (Previously Presented) The guide wire of claim 70, wherein the coil comprises a coating.

79. (Previously Presented) The guide wire of claim 78, wherein the coating is lubricious.

80. (Previously Presented) The guide wire of claim 78, wherein the coating is colored.

81. (Previously Presented) The guide wire of claim 70, wherein the coil comprises a rectangular cross-section.

82. (Previously Presented) The guide wire of claim 70, wherein the coil comprises a circular cross-section.

83. (Previously Presented) The guide wire of claim 70, wherein the coil comprises a multifilar wire.

84. (Previously Presented) A guide wire comprising:
an elongate core composed of a nickel-titanium alloy including a length, a proximal portion, and a distal portion;
a continuous multifilar cross-wound coil composed of a second material and that surrounds a substantial portion of the length of the core and extends distal of the distal portion of the core; and
a polymeric tip extending from a distal portion of the coil, wherein the tip connects to the core by a polymeric material.

85. (Previously Presented) The guide wire of claim 84, wherein the coil surrounds the entire length of the core.

86. (Previously Presented) The guide wire of claim 84, wherein the tip includes a radio-opaque material.

87. (Previously Presented) The guide wire of claim 84, wherein the coil comprises a coating.

88. (Previously Presented) The guide wire of claim 84, wherein the coil comprises a rectangular cross-section.

89. (Previously Presented) The guide wire of claim 57, wherein the polymeric tip is in contact with a distal portion of the coil.